Key Elements of Total Quality Management Implementation in Vocational High School

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Abstract: The main projection of vocational high school graduates is to work. To be able to make graduates ready to work, schools must know what graduates need to enter the world of work so that they can produce graduates who meet customer expectations, which in this case are industry and business players. The application of total quality management as a philosophy to satisfy customers has finally become the choice of most vocational high schools. The aim of this study is to describe and model the key elements for the successful implementation of total quality management (TQM) in vocational high schools. The research approach used is descriptive qualitative with the literature study method. The results of the study show that several elements that are key in the implementation of total quality management (TQM) in vocational high schools include leadership, top management commitment, customer focus, customer motivation and commitment, continuous improvement, quality culture, communication, training and education, quality assurance, involvement and empowerment of academic staff, and teamwork. These key elements in the model are grouped into two major groups namely leadership and customer focus where top management commitment is included in the leadership group and motivation and commitment of employees are included in the customer focus group, while the rest are included in the combined leadership and customer focus group. The application of these key elements is ultimately expected to achieve customer satisfaction.

Keywords: Total Quality Management, Leadership, Customer Focus, Vocational High School

Introduction

Unemployment and employment have always been a major problem in most countries around the world (Soleh, 2019). The ever-increasing number of unemployed can affect the economic growth of a country (Franita & Fuady, 2019). An increase in the quantity of unemployment will lead to a deterioration in economic conditions,

which in turn can lead to the birth of other problems in people's lives (Harjanto, 2014). Unemployment is caused by a number of factors, while the most common is the imbalance between the availability of the job market or employment with the number of existing workers and the discrepancy of the competencies that the workforce has with the needs of the market or the world of work (Franita & Fuady, 2019; Suhandi et al., 2021). The consequences of these factors that cause the lack of absorption of Labor (Soleh, 2019).

Based on data, unemployment in the world is still high at 6.17% in 2021. Although this figure decreased compared to the time of the covid-19 pandemic, which at that time the unemployment rate, which was exacerbated by the number of layoffs, reached 6.57% in 2020, however, this figure is still quite high compared to the period before the pandemic, which was 5.35% in 2019 (International Labour Organization, 2022). In Indonesia in particular, based on data released by Badan Pusat Statistik (2022) Indonesia's Open unemployment rate (TPK) in February 2022 stood at 5.83%, a decrease compared to the previous year of 6.26% when the covid-19 pandemic was still at its peak. Although the figure is down, it is still quite high compared to the period before the pandemic which was far adrift at 4.94%. This shows that Indonesia even the world still has homework to solve these problems.

Efforts to resolve the unemployment rate of the education sector contained in the Sustainable Development Goals (SDGs) began in 2015. Target number 4.4 in quality education points strive to improve technical and vocational skills in youth and adults as a provision for work and entrepreneurship (Bappenas, 2015). As for one type of education that is the main target of meeting these targets is vocational education. This is in accordance with the opinion of Clarke and Winch (2007) yang said that vocational education is education with the aim of training young people to enter the workforce so that learning is done more towards mastering techniques and practices. In Indonesia, vocational education is available in the form of Vocational High School. In line with the opinion of Clarke and Winch on the official Vocational High School website it is written that the target of the education carried out is to prepare students to enter the world of work (Ari, 2012). However, Law No. 20 of 2003 article 15 also states the same thing that vocational education is secondary education whose purpose is to develop the ability of learners, especially to work. However, the fact states that based on the data on the number of TPK that has been mentioned previously, from a total of 5.83% the highest percentage is precisely from vocational school graduates which is 10.38%. While in other types of education the number is still less, namely 8.35% for high school graduates, 6.17% for graduates of Diploma IV, undergraduate, graduate, postgraduate and 6.09% for Diploma I/II/III graduates. This shows that the achievement of the objectives of the vocational school is not optimal.

Ensuring that students get what they need when they graduate from vocational school is one solution to improve the quality and minimize the number of unemployed vocational school graduates. This is because students are the main customers of a vocational school. Ensuring students get what they need right during the study, is one effort to ensure customer satisfaction or satisfy the customer, which in this case is the student who is the main customer of a school. This is consistent with the theory total quality management (TQM). In TQM mentioned that the services provided by an institution must be in accordance with the needs, expectations and desires of

customers (Sallis, 2011). We are a company engaged in the procurement of goods to facilitate field work in the procurement of goods to facilitate field work continuous improvement (Azhar, 2018). According to Davis et al., (2014) total quality is the quality of services or products produced, humans who do the service process, the process itself and its environment.

In Indonesia, TQM has been applied to most vocational schools. However, in reality there are still many schools that have not been able to implement so well as the lack of ability to attract partner industries that are stakeholders and also customers to be able to work together with schools (Arifin, 2012; Fatah et al., 2022), so that the expected results of the application of TQM has not seen the maximum. It is necessary to understand the important elements that must be ensured in the application of TQM in vocational schools. Adopting TQM into the field of education is certainly not an easy thing because in practice TQM is more widely applied in companies, so to determine the key elements of the successful application of TQM in vocational schools, a study is needed by matching which elements are included in the realm of education, especially vocational high schools. For that reason, this paper aims to examine more deeply related to the important elements that must be known and applied by vocational schools that apply TQM in school management so that the application of TQM and the expected results can be maximized. After concluding the important elements, the researcher then made a model related to the elements of TQM and its relation to customer satisfaction. To examine the important elements related to the implementation of TQM in vocational high schools, the researchers used literature review where the literature taken from journals linked to Scopus and other reliable sources in the span of 10 years and from the previous year as supporting data, so that the results of this study can be a good reference for vocational high schools that implement TQM in Indonesia in particular and in the world in general as well as a reference for other researchers who pursue similar research fields.

Method

To answer the research question about key elements of total quality management implementation in vocational high schools, a literature study is applied in this research. The method used is descriptive qualitative. The literatures studied are from scientific articles, books, and other type of research documents taken from national or international sources which related to the topic of the research. The primary sources chosen are them which in the range of ten years, while from other years are only for supporters. The process of the data analysis started when searching the sources. After getting enough sources that meet the criteria, all sources are entered to an analysis software to be analyzed. After getting some points, data was displayed. The conclusion and research model were made after the data display was done.

Results

Reed, Lemark, and Mero in Azhar (2018) agree that the key elements of TQM implementation include customer satisfaction, cost reduction, top management leadership and commitment, training and education, teamwork and

organizational culture. Almost agree with that opinion Zakuan et al., (2012) in the results of his literature review on the key elements in the implementation of TQM in higher education mentioned that there are seven elements, namely management and leadership commitment, continuous improvement, total customer satisfaction, employee engagement, training, communication and teamwork. Rahmawati & Supriyanto (2020) finding that leadership and teamwork are the main keys to implementing TQM in educational institutions. While Azhar, (2018) finding that to apply TQM in education there are at least two changes that must be made, namely cultural change and substantive change. Cultural change is a change in the way of thinking and work that must focus on quality. While the substantive change is a business arrangement and objectives aimed at meeting customer satisfaction with. Then, Megnounif et al., (2013); Taskov & Mitreva; El-Hilali et al.; Glushak et al.; Larina, (2015); Azhar (2018) agreed that quality assurance is also an important element in the application of TQM in education.

Several field studies focusing on key elements in the application of TQM in educational institutions have been conducted by previous researchers. Megnounif et al., (2013), conducting survey research found that the key elements of quality management at the Faculty of technology at the University in Tlemcen in the field of administration include training and stakeholder engagement. Selanjutnya Moldovan (2012) mention of Quality Management System (QMS) and quality assurance is key to the implementation of TQM in higher education in Romania. Taskov & Mitreva (2015) conducting survey research on higher education in Macedonia found that stakeholder engagement, leadership and top management commitment occupy the top positions as key elements. And the last one is dari Wibowo et al., (2019) who conducted a study on SD Tunas Bangsa in Kubu Raya regency found that the key elements of TQM implementation in the school include the quality of leadership, the quality of teamwork and efforts to build a culture of quality.

Discussion

Total Quality Management in education

Quality according to Firdaus dkk (2021) it is in accordance with established standards or requirements aimed at meeting customer expectations. Meanwhile, some figures cited by Hoyer & Hoyer (2001) have their own views related to the definition of quality, among others: (1) Crosby revealed that quality is in accordance with demand. (2) Deming revealed that quality is defined as customer satisfaction. (3) Feigenbaum states that quality is determined by the customer, not by the technician, not the marketing department or manager. (4) Ishikawa states that quality is the satisfaction of customers who are always changing. (5) Juran argues that quality consists of two levels. The first Level is that quality means meeting expectations, while the second level is that quality means satisfying customers. From the views of some figures regarding the definition of quality, it is concluded that quality is related to standards and customer satisfaction.

From the definition of quality or quality above, it can be said that total quality management it deals with how an institution achieves customer satisfaction by setting standards that are tailored to its requirements. Davis et al

(2014) mention that total quality management is a philosophy about focusing on customers by involving people, measurements and processes as an effort to achieve success. According to Besterfield dkk (2012) total quality management it is an art to achieve success. In addition, he also mentioned that total quality management it can be interpreted both as a philosophy and as a series of guidelines based on the principles of continuous improvement. Furthermore, it is also said that total quality management includes the application of quality techniques in all segments of the organization (Pries & Quigley, 2013). From these opinions, concluded that total quality management it is a series of guidelines that contain established standards and adhere to the principle of continuous improvement to achieve customer satisfaction.

Next, to define total quality management in education, it is necessary to elaborate on the quality of education itself. Quality in education according to Firdaus dkk (2021) is the level of achievement of assurance (quality assurance) made in a certain period in the education unit. Meanwhile, according to Sopiatin quoted by Zazin (2017) the quality of education is the quality of the services of educational institutions provided to students or teaching staff who aim to make a quality educational process so as to produce graduates with the competencies and abilities and knowledge needed when he plunged into the community environment. Then it was concluded that total quality management in education is a strategy to achieve customer satisfaction education by improving the quality of the educational process so as to print graduates who match expectations.

The customer education in question according to (Sallis, 2011), are as follows: (1) primary customers, namely customers who get services directly. In this case it is students. (2) secondary customers, that is, those who have a direct interest in the education of both individuals and institutions, including parents, governors, job seekers from vocational school students. (3) tertiary customers, namely those who have an indirect interest in education but have an important role in the world of education, including future employers, government and society as a whole. (4) internal customers, namely employees of the institution and who have an important role in the success of the organization.

The relationship between education customers is as shown in Figure 1.
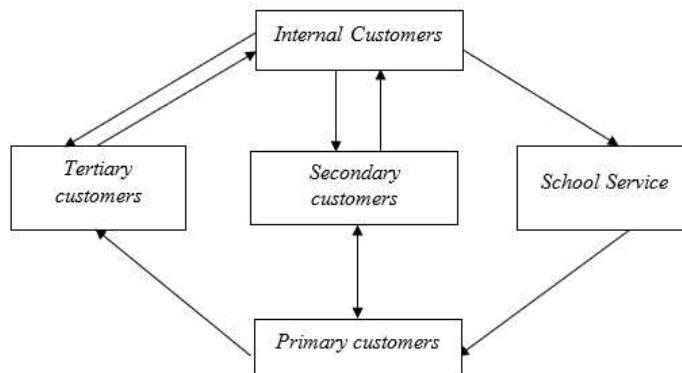

Figure 1. Customer Relations Education

(Source: Soetopo 2009)

Implementation of TQM in schools is said to be successful if it can achieve customer satisfaction education. The Mone team (Zazin, 2017) mention that school success can be measured from: (1) student satisfaction with school services, which include lessons received, treatment of teachers and leaders, school facilities or the overall situation of the school. (2) parents ' satisfaction with the services provided by the school to their children and the services received by parents in the form of student progress reports and school programs received by students. (3) satisfaction of the user or recipient of graduates which includes universities, industry and the community for receiving qualified graduates and according to expectations. (4) satisfaction of teachers and employees with the services received from the school in the form of division of labor, relationships and communication between teachers or leaders and other staff, salaries or honors received and other services.

To be able to achieve this success, schools that apply TQM according Zazin (2017) the following are some of the most important things to keep in mind: (1) continuous improvement (2) the standard of care (quality assurance (3) cultural change (4) organization change (upside-down organization) (5) maintain a good relationship with customer (keeping close to the customer).

In addition, according to Salleh dkk (2018) successful implementation of TQM can be achieved through the application of the principles total quality management itself. According to Charantimath (2017) there are eight principles of TQM as follows: (1) focus on customers, meaning that an organization in meeting its customer satisfaction must listen to what they want because the success of the organization depends on customer assessment. As for some steps in meeting customer satisfaction, among others: (a) identify customer needs; (b) design products in accordance with customer needs; (c) produce products in accordance with customer demand; (d) improve service to complaints; (e) measure customer satisfaction; (f) improve quality in order to please customers. (2) leadership, meaning that an organization definitely needs direction from superiors to explain the value of quality, customer-oriented approach. Leaders in this case needed to be role model for members of the organization. (3) the involvement of each person, meaning that in total quality management everyone has the right to be involved, so that everyone can contribute work donations according to their individual abilities. (4) process approach, meaning that good results are produced when the process through which good anyway. The process approach is an important principle in total quality management. (5) management systems approach, i.e., identifying, understanding, and managing systems that contribute to organizational efficiency. (6) continuous improvement, meaning that all members of the organization must constantly improve performance to meet the needs of interested parties is a permanent goal of the organization. (7) decision making based on facts, meaning to be able to make good decisions required analysis of data and information so that the resulting decision to be effective. (8) the relationship between supplier, namely that the ability of the organization and supplier to produce a value can be done through a relationship of mutualism.

While according to Zakuan dkk (2012) this is a list of some of the most important factors in implementing TQM i.e., management commitment and leadership, continuous improvement, total customer satisfaction employee engagement involvement, training, communication and teamwork.

Key Elements of Total Quality Management Implementation in Vocational High School

From the findings related to several key elements in the application of TQM as well as important discussions related to the application of TQM in the world of Education Above, It is concluded that the following key elements are the most relevant to the application of TQM in vocational high schools some of the key elements include leadership, top management commitment, customer focus, customer motivation and commitment, continuous improvement, quality culture, communication, training and education, quality assurance, employee empowerment, involvement of academic staff, and teamwork.

Leadership

According to Taskov & Mitreva (2015) leadership is the essence that is very influential on the successful implementation of TQM. It is with the opinion Djuwariyah (2008) which states that leadership skills in moving and exploring the resources owned by the school is a determinant of success in the management and development of curriculum in vocational schools to produce quality graduates. The role of leaders in the implementation of TQM is very important, namely as an advisor and a driving force in the improvement effort (Rahmawati & Supriyanto, 2020).

As for according to (Sallis, 2011) the functions or roles of leaders in developing a quality culture are as follows: (1) having an integrated vision; (2) having a clear commitment to improving quality; (3) communicating quality; (4) ensuring that policies and all activities are centered on customer needs; (5) being a guide for staff development; (6) being a wise problem solver by not blaming someone without knowing the truth because the majority of problems occur not because of staff errors but due to institutional policies; (7) Creating Innovation; (8) creating organizational structures and clear distribution of responsibilities and delegating responsibilities to the right people; (9) committed to overcoming organizational or cultural obstacles (10) building an effective team; (11) controlling and evaluating performance results with appropriate mechanisms.

The leadership initiative in TQM according to Taskov & Mitreva (2015) includes commitment to the philosophy of TQM by actively participating in both academic and opinion delivery, applying a proactive work style, through cooperation, training and providing support for good work and achievement. In addition, in the process of quality improvement, according to Austin and Peters cited by Sallis (2011), the leader is someone who has a vision and role as a facilitator and is responsible for motivating his team. They call such leadership management by walking about (MBWA). This style of leadership allows the leader to stay close to the staff, leading to the creation of innovative and creative ideas. The characteristics of leaders who apply the MBWA style are: (1) listening to staff, this is intended to show that the leader cares about his employees. (2) teach and transmit values. (3) facilitate and provide assistance and advice directly on the spot. Good leadership from the principals of Vocational High Schools, Vice Principals, teachers and all school residents can make the implementation of TQM in vocational high schools run well and purposefully.

Top Management Commitment

One of the keys to the success of TQM is leadership as previously discussed. A leader must have a commitment, especially to keep members focused on the quality to be achieved by still communicating organizational goals to all members (Azhar, 2018). This commitment according to Glushak et al., 2015) is a form of quality in TQM. The principles of TQM in order to run in an educational organization take time and also commitment, especially commitment from the leader of the organization (Moldovan, 2012).

According to Taskov & Mitreva (2015) without a commitment from top management to create targets in making quality institutions TQM implementation will only spend time and money and can hinder the achievement of success. Wibowo et al (2019) finding that the successful implementation of TQM in one of schools in Indonesia is a strong commitment from senior leaders and teachers. Zakuan et al (2012) finding that top management commitment is one of the critical success factors of TQM implementation in educational institutions. Thus, the commitment of top management influences the successful implementation of TQM in vocational high schools.

Customer Focus

In order to compete in a fast-changing global world an educational institution must reorganize its academic programs in order to achieve stakeholder expectations (El-Hilali et al., 2015). This is because the desire of stakeholders or customers is the main objective of the implementation of TQM (Azhar, 2018; Glushak et al., 2015; Lapiņa et al., 2015). Therefore, to be able to achieve success in the implementation of TQM an organization must listen to the aspirations of the customer (Kędzierska-Bujak, 2021). Quality assurance carried out in TQM must focus on customers so as to achieve customer satisfaction (Megnounif et al., 2013). The focus on the customer is the starting point for improving the quality of service of educational organizations (Moldovan, 2012). In educational institutions all efforts such as curriculum management, revamping school culture and all the qualities to be achieved estuary school is customer satisfaction so that the school must depart from the needs of customers in conducting school affairs (Wibowo et al., 2019). In (Zakuan et al., 2012) it is stated that customer focus is the main goal of TQM and is the key to the success of TQM implementation. Thus, customer focus can be considered as one of the key elements of the implementation of TQM in vocational high schools.

Customer Motivation and Commitment

Commitment is one of the main concepts in the implementation of TQM (Azhar, 2018; Glushak et al., 2015; Moldovan, 2012). Therefore, the academic staff in the school should be rewarded for their work achievements because the poor assessment and treatment of these internal customers will cause them to lose their motivation and commitment (Megnounif et al., 2013). Commitment and motivation are academic staff greatly affect the success of the implementation of TQM in schools (Taskov & Mitreva, 2015). Wibowo et al (2019) finding that the lack of motivation from teachers can be an obstacle to the implementation of TQM, especially in continuous

improvement. This is reinforced by Zakuan et al (2012) who found that customer motivation and commitment to be a factor in the successful implementation of TQM in educational institutions. Starting from that, it is concluded that customer motivation and commitment can also be the key to successful implementation of TQM in vocational high schools.

Continuous Improvement

The main concept of TQM is continuous improvement (Azhar, 2018; Glushak et al., 2015). This is because quality improvement is a long process that requires gradual and continuous improvement (Azhar, 2018). Effective school management can be achieved through continuous improvement (Kędzierska-Bujak, 2021). Understanding the needs of students is important, but no less important must be followed by continuous improvement thereafter (Larina, 2015). To be able to perform continuous improvement needed a guideline, rules and quality standards to be achieved (Megnounif et al., 2013). Continuous improvement is one way to continue to improve the quality of Education (Taskov & Mitreva, 2015). One of the obstacles in running effective management is the lack of continuous learning and improvement (Taskov & Mitreva, 2015). In a school continuous improvement is important to improve the professionalism of teachers and other academic staff (Wibowo et al., 2019). Continuous improvement according to Zakuan et al (2012) like a wheel on a vehicle that can make the vehicle move forward. Thus, continuous improvement can be considered as one of the key elements of total quality management implementation in Vocational High School.

Quality Culture

To be able to spread the concept of TQM required a certain quality culture (Taskov & Mitreva, 2015). That is why quality culture is one of the causes of successful implementation of TQM (Azhar, 2018). To be able to improve the quality of organizational culture, it is necessary to have a strategic development chosen by an educational institution that must also be guided by the rules of organizational quality (Lapiņa et al., 2015). In addition, quality culture can also be achieved through training to all academic staff on a regular basis (Moldovan, 2012). Taskov & Mitreva (2015) mention that to be able to change organizational culture can be done by improving teamwork. Research results (Wibowo et al., 2019) finding that quality culture is one of the keys to the implementation of TQM in one of the schools by continuing to make quality improvements. From these discussions, it was concluded that quality culture is also the key to successful implementation of TQM in vocational high schools.

Communication

In TQM cooperation is carried out between everyone in the organization. In a school, all school residents ranging from principals, vice principals, teachers, administrative staff, gardeners to security guards work together to create a comfortable learning environment and atmosphere for customers, namely students. Such great cooperation needs to be bridged by effective communication so that every work done by each party is in

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accordance with what has been shared previously and the school's goal of creating a comfortable atmosphere for students can be achieved (Azhar, 2018). In this case, the role of the leader in communicating the tasks of its members becomes very important so that the communication skills of the leader become one of the most important factors in the implementation of TQM in vocational high schools.

Research results by Lapiņa et al (2015) finding that to be able to change an organization towards a better direction requires a good internal communication process. Intensive communication with members in one department is also one that determines the successful implementation of TQM in educational organizations (Larina, 2015). Communication between different departments is also something that cannot be ruled out because good cooperation between different departments can lead the organization to success (Megnounif et al., 2013).poor communication between all parties in an organization will lead the organization to poor results as well (Taskov & Mitreva, 2015). Thus, communication is one way to increase the success rate of TQM implementation (Zakuan et al., 2012). Thus, it can be concluded that communication is one of the key elements of successful implementation of TQM in Vocational High School.

Training and Education

As an organization that aims to produce graduates who are able to work vocational high schools must adapt to the rapid development of technology so that schools can know the needs for their learners. To be able to know the needs of these students, schools need to ensure that teachers and other academic stars have an understanding that also adapts to the rapid development of the Times, which can be achieved through training and education (Azhar, 2018). It is also similar to that expressed by Glushak et al (2015), that to achieve quality in education it is necessary to have training and also continuous professional development for all school staff.

Megnounif et al (2013) mention that quality training is one of the things contained in quality planning. Staff training is aimed at achieving customer satisfaction because the staff who perform services to the main customers where in this case there are Vocational High School students (Moldovan, 2012). The training is also aimed at self-evaluation as well as external evaluation in order to overcome the lack of professional experience (Taskov & Mitreva, 2015). Less good a training can be a problem for management work (Taskov & Mitreva, 2015). Training can be aimed at teachers who have been teaching for a long time or who have recently received teaching assignments (new teachers) to improve their performance (Wibowo et al., 2019). The involvement of all school residents in school work causes them to stay updated on the capabilities needed for their involvement, and this can be achieved through training (Zakuan et al., 2012). Thus, training and education are important things to consider in the implementation of TQM in vocational high schools.

Quality Assurance

Quality assurance is a form of fulfillment of responsibilities and promises to stakeholders by steps to establish and meet the quality standards of managers consistently and sustainably (Sani, 2015). In the quality approach,

quality assurance against stakeholder demands is none other than to improve customer satisfaction (Megnounif et al., 2013). In addition, the limited resources in the implementation of education causes quality control to be carried out in the form of quality assurance. It is intended that educational services can achieve or exceed the expectations of stakeholders and the eight points of the national standard of Education (Zahrok, 2020). As a form of fulfilling the demands of stakeholders, quality assurance must be met in the implementation of quality education so that it can produce graduates who are skilled and have good skills (Zahrok, 2020). Competency standards of vocational high school graduates based on Permendikbud (Indonesian education and culture Ministerial Regulation) number 7 of 2022 is contained in the content standard developed from the analysis of material needs to achieve the expected graduate competencies. The content standard consists of two parts, namely general content and vocational content. The development of general content is equivalent to high school while the development of vocational content is specific in accordance with the program or competence of each skill.

Quality assurance of education should be set out in the form of a strategic document on the development of the institution. As for the content of the document, it should contain the relevance of quality management as an activity aimed at meeting the demands of stakeholders and ensuring the quality standards of educational activities based on process control focused on results and efficiency (Glushak et al., 2015). Presentation of a description of the quality assurance system to external evaluators, members of the organization, Students and other stakeholders can be in the form of a quality map (Larina, 2015). Deming in Larina (2015) states that quality assurance starts from the planning stage to set long-term goals. Examples of good planning include: (1) the formation of small groups that allow an individual approach; (2) classes scheduled according to the needs of students; (3) the selection of qualified academic personnel; (4) the required classrooms and teaching materials adapted to the characteristics of education and international requirements. With the quality assurance expected vocational high school has a clear benchmark related to graduates like what the school wants to produce.

Involvement and Empowerment of Academic Staff

Quality according to (Azhar, 2018) in the hands of stakeholders. Academic staff are stakeholders and also internal customers of vocational high schools, so their involvement and empowerment can be the key to successful implementation of TQM in vocational high schools. The aspirations of these academic staff are also important because they are the ones who are directly related to their respective tasks (Kędzierska-Bujak, 2021; Megnounif et al., 2013; Rahmawati & Supriyanto, 2020; Taskov & Mitreva, 2015). According to Stabback (2016) In the development of curriculum to create qualified vocational graduates, their involvement is very important.

Because the views of the academic staff can enable the creation of an inclusive and practical curriculum that can meet the needs of diverse learners. Stakeholder engagement can increase their satisfaction as customers can also increase their commitment to what they have voiced (Salleh et al., 2018). Conversely, lack of stakeholder involvement can be an obstacle to the implementation of TQM in vocational schools (Wibowo et al., 2019).

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Thus, it is concluded that the involvement and empowerment of academic staff can be decisive for the successful implementation of TQM in vocational high schools.

Teamwork

The team is a group of people who have the same goal (Rahmawati & Supriyanto, 2020). In educational institutions, all residents in the educational institution are part of the team so that teamwork will be created if they are involved in activities at the institution (Rahmawati & Supriyanto, 2020). Solid teamwork is one of the most efficient ways to accomplish organizational tasks and missions (Belbin, 2010). This is because the thoughts of two or more people are considered better than one person, the results of the work of a team are better than those of a person or individual, communication and socialization between members can be better established through teamwork (Rahmawati & Supriyanto, 2020). In addition, according to Rukly in (Zakuan et al., 2012), teamwork can unite all staff of the organization in achieving quality improvement or quality repair.

Furthermore, to achieve the expected quality, it takes collaboration and contributions from all members of the organization and this can be achieved through teamwork (Wibowo et al., 2019). Therefore, teamwork is one of the key elements of successful implementation of TQM (Azhar, 2018; Wibowo et al., 2019; Zakuan et al., 2012). In addition, teamwork is considered an important component in the implementation of TQM because it can increase trust and communication between members and develop independence (Azhar, 2018; Wibowo et al., 2019). Teamwork can also be an initiator of organizational change (Taskov & Mitreva, 2015), so it should be expanded and completely spread throughout the institution (Azhar, 2018). From some of the opinions above, it can be concluded that teamwork is inseparable from the implementation of TQM in any sector, including its practice in curriculum preparation.

The way to build good cooperation is to develop active team behavior (Wibowo et al., 2019). The characteristics of the active team in question are as follows: (1) initiating discussions; (2) collecting information and opinions; (3) providing input related to procedures to achieve goals; (4) clarifying and elaborating ideas; (5) concluding and testing agreements; (6) acting as gatekeeper (information selectors); (7) organize conversations; (8) compromise and resolve disputes creatively (9) try to calm tensions and overcome difficulties in the Group; (10) make the group agree on standards, refer to data and documentation; (11) praise and correct others fairly; (12) accept praise and complaints.

In addition, to form a good teamwork in educational institutions, things that can be done include improving the quality of human resources through activities workshop, seminars to training (Rahmawati & Supriyanto, 2020). In line with this Taskov & Mitreva (2015) believes that teamwork in the implementation of TQM in schools, rests on Team training held over a long period of time and includes all members of the organization in accordance with their fields and jobs. Druskat and The Wolf Inside Taskov & Mitreva (2015) it also added that the elements of cooperation are the ability to work creatively that leads to professional contribution, respect for the opinions and attitudes of other members, willingness to be involved in management, passion for mutual

success and this will ultimately result in the development of mutual trust and respect, commitment, expansiveness, patience and loyalty to each other and even loyalty to the institution. Awareness of the importance of cooperation on each team member will be able to contribute positively to the successful implementation of TQM in vocational high school.

Model key elements of total quality implementation in vocational high school can be seen in Figure 2.
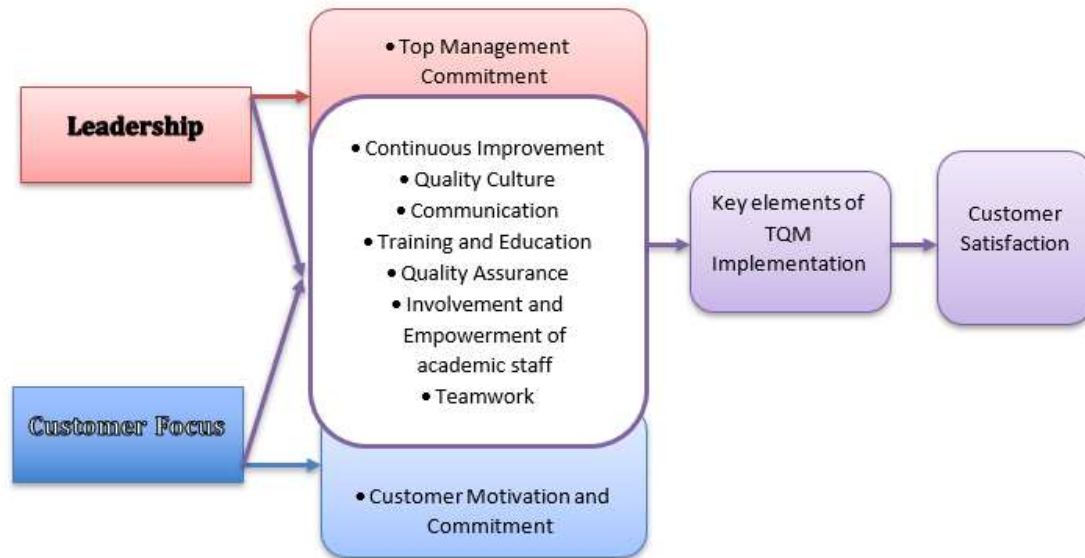

Figure 2. Key Elements of Total Quality Implementation in Vocational High schools

Conclusion

The results of the study show that several elements that are key in the implementation of total quality management (TQM) in vocational high schools include leadership, top management commitment, customer focus, customer motivation and commitment, continuous improvement, quality culture, communication, training and education, quality assurance, empowerment, involvement and empowerment of academic staff, and teamwork. These key elements in the model are grouped into two major groups namely leadership and customer focus where top management commitment is included in the leadership group and motivation and commitment of employees are included in the customer focus group, while the rest are included in the combined leadership and customer focus group. The application of these key elements is ultimately expected to achieve customer satisfaction.Future research on education management in vocational high school (case study).

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